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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jin Hee Jung

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EXAMINER

FINEMAN, LEE A

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/024,222	Applicant(s) JUNG, JIN HEE	
	Examiner Lee Fineman	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23, 25-28 and 30-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 25-28 and 30-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to an amendment filed 6 July 2004 in which claims 1, 3-5, 10-11, 13-14, 17, 19, 23, 25, 31-32, 37-39 and 42 were amended and claims 24 and 29 were cancelled. Claims 1-23, 25-28 and 30-42 are pending.

Claim Objections

1. Claims 1-10 are objected to because of the following informalities:

Regarding claim 1, line 9 the limitation "with the separation is performed" is grammatically incorrect. The dependent claims inherit the deficiencies of the claims from which they depend. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 8-11, 13, 17, 19, 23, 27, 30-33, 35, 37, 39-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin et al., European. Patent Application No. 0 477 882 A2 in view of Kameyama et al., U.S. Patent No. 6,433,853 B1.

Regarding claim 1, 4, 8-11, 13, 23, 27, 30-33, 35, 37, 39-40 and 42, Franklin et al. discloses a polarizer stereoscopic display apparatus (fig. 1 and fig. 8a) comprising a liquid crystal display panel (12) for producing modulated light in accordance with signal data having a left-eye

Art Unit: 2872

and right-eye image information (14, 16); a polarizer (column 2, lines 8-10 and fig. 8a) for passing a portion of the modulated light from the liquid crystal display, wherein a portion of modulated light has a predetermined polarization; a patterned retarder (22); wherein the patterned retarder includes a plurality of first area cells (26) for separating light polarization passed through the polarizer into a left-eye picture and a plurality of second area cells (24) for separating light polarization passed through the polarizer into a right-eye picture, wherein the plurality of first area cells and the plurality of second area cells are patterned in accordance with the predetermined pattern of said left-eye and right eye-modulated light (column 2, lines 7-35); wherein the first and second cell areas are in alternating lines; and wherein said retarder is covered with a protecting polymer and directly adhered to the polarizer (fig. 8a); and further including polarizing glasses (23) for receiving different polarization wherein the polarizing glasses have a different polarization for a left lens and a right lens (column 2, lines 35-41).

Franklin et al. disclose the claimed invention except for the retarder being a retarder material directly on a transparent substrate, which is adhered directly on the polarizer; wherein the retarder material contains a chiral material made from a liquid crystal polymer mixture for enabling light modulation; and wherein the transparent substrate is formed from a wave guide material. Kameyama et al. teaches a retarder for use in a liquid crystal display which comprises a retarder material directly on a transparent substrate (column 10, lines 23-51); wherein the retarder material contains a chiral material made from a liquid crystal polymer mixture for enabling light modulation (column 4, lines 11-18); and wherein the transparent substrate is formed from a wave guide material (column 10, lines 23-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the retarder of Franklin

Art Unit: 2872

et al. with the one of Kameyama et al. to provide high light transmittance to the system (Kameyama, column 10, lines 23-26). Therefore, the retarder material directly on a transparent substrate will be adhered directly on the polarizer (see fig. 8a, Franklin).

Regarding claims 17 and 19, Franklin et al. discloses a method of manufacturing a polarizer stereoscopic display apparatus (fig. 1 and fig. 8a) comprising the steps of preparing a polarizer (column 2, lines 8-10 and fig. 8a) for polarizing light transmitted by a display panel (12); preparing a patterned retarder (22); wherein the patterned retarder includes a plurality of first area cells (26) for transmitting light for a left-eye picture and a plurality of second area cells (24) for transmitting light for a right-eye picture; and adhering the retarder directly to the polarizer (fig. 8a). Franklin et al. disclose the claimed invention except for the retarder being formed as a retarder material directly on a transparent substrate, which is adhered directly on the polarizer; wherein the retarder material contains a chiral material made from a liquid crystal polymer mixture for enabling light modulation; and wherein the transparent substrate is formed from a wave guide material. Kameyama et al. teaches a retarder for use in a liquid crystal display which includes forming a retarder material directly on a prepared transparent substrate (column 10, lines 23-51); wherein the retarder material contains a chiral material made from a liquid crystal polymer mixture for enabling light modulation (column 4, lines 11-18); and wherein the transparent substrate is formed from a wave guide material (column 10, lines 23-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the retarder of Franklin et al. with the one of Kameyama et al. to provide high light transmittance to the system (Kameyama, column 10, lines 23-26). Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adhere the

Art Unit: 2872

transparent substrate of Kameyama et al. directly on the polarizer of Franklin et al. as this is the appropriate position for proper functioning (see fig. 8a, Franklin).

4. Claims 5-7, 14-16, 20-22, 25-26, 28, 34, 38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin et al. in view of Kameyama et al., as applied to claims 4, 13, 19, 23, 32 and 39 and further in view of Moseley et al., U.S. Patent No. 6,046,849.

Franklin et al. in view of Kameyama et al., as applied to claims 4, 13, 19, 23, 32 and 39 disclose the claimed invention except for wherein the retarder material contains a chiral material made from a liquid crystal polymer mixture containing a chiral dopant and is exposed to light so as to be patterned with a plurality of first area cells for transmitting light for the left-eye picture and a plurality of second area cells for transmitting light for the right-eye picture; wherein the first and second cell areas are in alternating lines or in a checkered pattern; and further comprising an adhesive layer contacting the transparent substrate and the polarizer. Moseley et al. teaches a polarizer stereoscopic display apparatus (figs. 10-11) comprising a liquid crystal display panel (1), a polarizer (21) and a patterned retarder material (67 in 20 see figs. 17 and 18) containing a chiral material made from a liquid crystal polymer mixture containing a chiral dopant for enabling light modulation (column 18, lines 1-7) and is exposed to light so as to be patterned with a plurality of first area cells for transmitting light for the left-eye picture and a plurality of second area cells for transmitting light for the right-eye picture wherein the first and second cell areas are in alternating lines (figs. 17a-17d) or a checkered pattern (figs. 18a-18j). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the retarder material of Franklin et al. in view of Kameyama et al. include a chiral material

Art Unit: 2872

made from a liquid crystal polymer mixture containing a chiral dopant and being exposed to light so as to be patterned with a plurality of first area cells for transmitting light for the left-eye picture and a plurality of second area cells for transmitting light for the right-eye picture wherein the first and second cell areas are in alternating lines or in a checkered pattern to provide a guiding twisted retarder (column 18, lines 4-6, Moseley). The method of utilizing the structure of the claim is inherent therein. Further Moseley teaches using an adhesive to permanently affix the layers of the system (column 13, lines 57-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an adhesive, and thereby have an adhesive layer, to adhere the transparent substrate to the polarizer to ensure rigidity and minimize degradation to window quality.

5. Claims 2-3, 12, 18 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin et al. in view of Kameyama et al., as applied to claims 1, 11, 17 and 32 and further in view of Deanne et al., US Patent No. 6,627,305 B1.

Franklin et al. in view of Kameyama et al., as applied to claims 1, 11, 17 and 32 disclose the claimed invention except for explicitly stating that the transparent substrate is made from a solvent-proof polymer, which does not affect polarization changes of the light between the polarizer and the retarder material. Solvent proof polymers such as polyimide are well known in the art for use as substrates in liquid crystal systems as evidenced by Deanne (column 1, lines 38-39). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a well-known solvent proof polymer such as polyimide as the

Art Unit: 2872

material for the transparent substrate of Franklin in view of Kameyama et al. to reduce the weight of the system (Deanne, column 1, lines 37-38).

Response to Arguments

6. Applicant's arguments with respect to claims 1-23, 25-28 and 30-42 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

Art Unit: 2872

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF

October 1, 2004


MARK A. ROBINSON
PRIMARY EXAMINER